



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division  
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

**August 24, 2016**

**4SESD-ASB**

**MEMORANDUM**

**SUBJECT:** FINAL Analytical Report  
Project: 16-0451, North Georgia Surface Water PFC Study  
Civil Enforcement

**FROM:** Floyd Wellborn  
ASB Organic Chemistry Section Chief

**THRU:** Danny France, Chief  
Analytical Support Branch

**TO:** Mike Neill

**This data report is being reissued. Some or all of these results were previously reported. Please substitute the corrected results for those results previously reported. Please refer to the Report Narrative for more details.**

Attached are the final results for the analytical groups listed below. These analyses were performed in accordance with the Analytical Support Branch's (ASB) Laboratory Operations and Quality Assurance Manual (ASB LOQAM) found at [www.epa.gov/region4/sesd/asbsop](http://www.epa.gov/region4/sesd/asbsop). Any unique project data quality objectives specified in writing by the data requestor have also been incorporated into the data unless otherwise noted in the Report Narrative. Chemistry data have been verified based on the ASB LOQAM specifications and have been qualified by this laboratory if the applicable quality control criteria were not met. Verification is defined in Section 5.2 of the ASB LOQAM. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report. The reported results are accurate within the limits of the method(s) and are representative only of the samples as received by the laboratory.

Analyses Included in this report:

Method Used:

Accreditations:

**Semi Volatile Organics (SVOA)**

PFCs

ASB 100S (Water)

ISO



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**Report Narrative for Work Order: E162703 Analysis: SVOA**

8/23/16 FW SVOA: These results have been re-reported after instrument maintenance, which resolved previous analysis quality control problems, and reanalysis within sample holding time. This report replaces the previous report E162703 SVOA FINAL 08 05 16 1651.

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**Sample Disposal Policy**

Because of the laboratory's limited space for long term sample storage, our policy is to dispose of samples on a periodic schedule. Please note that within 60 days of this memo, the original samples and all sample extracts and/or sample digestates will be disposed of in accordance with applicable regulations. The 60-day sample disposal policy does not apply to criminal samples which are held until the laboratory is notified by the criminal investigators that case development and litigation are complete.

These samples may be held in the laboratory's custody for a longer period of time if you have a special project need. If you wish for the laboratory to hold samples beyond the 60-day period, please contact our Sample Control Coordinator by e-mail at [R4SampleCustody@epa.gov](mailto:R4SampleCustody@epa.gov), and provide a reason for holding samples beyond 60 days



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**SAMPLES INCLUDED IN THIS REPORT**

**Project: 16-0451, North Georgia Surface Water PFC Study**

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
1084	E162703-01	Surface Water	6/19/16 09:20	6/27/16 9:50
1085	E162703-02	Surface Water	6/19/16 12:45	6/27/16 9:50
1086	E162703-03	Surface Water	6/19/16 13:25	6/27/16 9:50
1087	E162703-04	Surface Water	6/19/16 14:55	6/27/16 9:50
1088	E162703-05	Surface Water	6/19/16 15:53	6/27/16 9:50
1089	E162703-06	Surface Water	6/19/16 16:40	6/27/16 9:50
1090	E162703-07	Surface Water	6/20/16 08:45	6/27/16 9:50
1094	E162703-11	Surface Water	6/20/16 09:55	6/27/16 9:50
1095	E162703-12	Surface Water	6/20/16 10:55	6/27/16 9:50
1096	E162703-13	Surface Water	6/20/16 11:10	6/27/16 9:50
1097	E162703-14	Surface Water	6/21/16 09:15	6/27/16 9:50
1098	E162703-15	Surface Water	6/21/16 10:25	6/27/16 9:50
1099	E162703-16	Surface Water	6/21/16 11:05	6/27/16 9:50
1100	E162703-17	Surface Water	6/21/16 12:25	6/27/16 9:50
1101	E162703-18	Surface Water	6/21/16 14:05	6/27/16 9:50
1102	E162703-19	Surface Water	6/21/16 14:45	6/27/16 9:50
1103	E162703-20	Surface Water	6/21/16 15:10	6/27/16 9:50
1104	E162703-21	Surface Water	6/22/16 09:05	6/27/16 9:50
1105	E162703-22	Surface Water	6/22/16 10:05	6/27/16 9:50
1109	E162703-26	Surface Water	6/22/16 12:15	6/27/16 9:50
1110	E162703-27	Surface Water	6/22/16 12:50	6/27/16 9:50
1111	E162703-28	Surface Water	6/22/16 15:34	6/27/16 9:50
1112	E162703-29	Surface Water	6/23/16 08:55	6/27/16 9:50
1113	E162703-30	Surface Water	6/23/16 09:10	6/27/16 9:50
1114	E162703-31	Surface Water	6/23/16 13:40	6/27/16 9:50
1115	E162703-32	Surface Water	6/24/16 11:20	6/27/16 9:50
1116	E162703-33	Surface Water	6/24/16 12:10	6/27/16 9:50
1117	E162703-34	Surface Water	6/24/16 12:45	6/27/16 9:50
1118	E162703-35	Surface Water	6/24/16 13:15	6/27/16 9:50
1119	E162703-36	Surface Water	6/24/16 13:30	6/27/16 9:50
1120	E162703-37	Surface Water	6/24/16 13:45	6/27/16 9:50
1121	E162703-38	Surface Water	6/24/16 14:35	6/27/16 9:50
1122	E162703-39	Surface Water	6/24/16 15:05	6/27/16 9:50



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### DATA QUALIFIER DEFINITIONS

U	The analyte was not detected at or above the reporting limit.
J	The identification of the analyte is acceptable; the reported value is an estimate.
Q-2	Result greater than MDL but less than MRL.
QM-3	Matrix Spike Precision outside method control limits
QR-1	MRL verification recovery less than lower control limits.

### ACRONYMS AND ABBREVIATIONS

CAS	Chemical Abstracts Service  Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System ( <a href="http://www.epa.gov/srs">www.epa.gov/srs</a> ), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory.
MDL	Method Detection Limit - The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero.
MRL	Minimum Reporting Limit - Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments.
TIC	Tentatively Identified Compound - An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported.

#### ACCREDITATIONS:

ISO	The test, if analyzed after June 26, 2012, is accredited under the EPA Region 4 ASB's ISO/IEC 17025 accreditation issued by ANSI-ASQ National Accreditation Board/ACLASS. Refer to certificate and scope of accreditation AT-1691.
NR	The EPA Region 4 Laboratory has not requested accreditation for this test.



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## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1084

Lab ID: E162703-01

Station ID: RV 14 4438

Matrix: Surface Water

Date Collected: 6/19/16 9:20

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 0:17	ASB 100S
335-76-2	PFDA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 0:17	ASB 100S
375-85-9	PFHpA	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 0:17	ASB 100S
307-24-4	PFHxA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 0:17	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 0:17	ASB 100S
375-95-1	PFNA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 0:17	ASB 100S
335-67-1	PFOA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 0:17	ASB 100S
1763-23-1	PFOS	0.015	J, Q-2	ug/L	0.026	7/01/16 10:46	8/17/16 0:17	ASB 100S



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## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1085

Lab ID: E162703-02

Station ID: RV 14 16663

Matrix: Surface Water

Date Collected: 6/19/16 12:45

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 0:35	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 0:35	ASB 100S
375-85-9	PFHpA	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 0:35	ASB 100S
307-24-4	PFHxA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 0:35	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 0:35	ASB 100S
375-95-1	PFNA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 0:35	ASB 100S
335-67-1	PFOA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 0:35	ASB 100S
1763-23-1	PFOS	0.017	J, Q-2	ug/L	0.026	7/01/16 10:46	8/17/16 0:35	ASB 100S



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## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1086

Lab ID: E162703-03

Station ID: RV 14 16664

Matrix: Surface Water

Date Collected: 6/19/16 13:25

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	0.081		ug/L	0.026	7/01/16 10:46	8/17/16 0:52	ASB 100S
335-76-2	PFDA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 0:52	ASB 100S
375-85-9	PFHpA	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 0:52	ASB 100S
307-24-4	PFHxA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 0:52	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 0:52	ASB 100S
375-95-1	PFNA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 0:52	ASB 100S
335-67-1	PFOA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 0:52	ASB 100S
1763-23-1	PFOS	0.030		ug/L	0.026	7/01/16 10:46	8/17/16 0:52	ASB 100S



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## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1087

Lab ID: E162703-04

Station ID: RV 14 4457

Matrix: Surface Water

Date Collected: 6/19/16 14:55

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	0.037		ug/L	0.026	7/01/16 10:46	8/17/16 1:09	ASB 100S
335-76-2	PFDA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 1:09	ASB 100S
375-85-9	PFHpA	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 1:09	ASB 100S
307-24-4	PFHxA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 1:09	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 1:09	ASB 100S
375-95-1	PFNA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 1:09	ASB 100S
335-67-1	PFOA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 1:09	ASB 100S
1763-23-1	PFOS	0.019	J, Q-2	ug/L	0.026	7/01/16 10:46	8/17/16 1:09	ASB 100S



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## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1088

Lab ID: E162703-05

Station ID: RV 14 16665

Matrix: Surface Water

Date Collected: 6/19/16 15:53

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	0.53		ug/L	0.026	7/01/16 10:46	8/17/16 1:26	ASB 100S
335-76-2	PFDA	0.033	J, Q-2	ug/L	0.045	7/01/16 10:46	8/17/16 1:26	ASB 100S
375-85-9	PFHpA	0.11		ug/L	0.026	7/01/16 10:46	8/17/16 1:26	ASB 100S
307-24-4	PFHxA	0.17		ug/L	0.045	7/01/16 10:46	8/17/16 1:26	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 1:26	ASB 100S
375-95-1	PFNA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 1:26	ASB 100S
335-67-1	PFOA	0.15		ug/L	0.045	7/01/16 10:46	8/17/16 1:26	ASB 100S
1763-23-1	PFOS	0.32		ug/L	0.026	7/01/16 10:46	8/17/16 1:26	ASB 100S



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## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1089

Lab ID: E162703-06

Station ID: RV 14 16666

Matrix: Surface Water

Date Collected: 6/19/16 16:40

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	1.6		ug/L	0.26	7/01/16 10:46	8/17/16 1:43	ASB 100S
335-76-2	PFDA	0.029	J, Q-2	ug/L	0.045	7/01/16 10:46	8/17/16 5:07	ASB 100S
375-85-9	PFHpA	0.16		ug/L	0.026	7/01/16 10:46	8/17/16 5:07	ASB 100S
307-24-4	PFHxA	0.26		ug/L	0.045	7/01/16 10:46	8/17/16 5:07	ASB 100S
355-46-4	PFHxS	0.060		ug/L	0.026	7/01/16 10:46	8/17/16 5:07	ASB 100S
375-95-1	PFNA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 5:07	ASB 100S
335-67-1	PFOA	0.39		ug/L	0.045	7/01/16 10:46	8/17/16 5:07	ASB 100S
1763-23-1	PFOS	0.43		ug/L	0.026	7/01/16 10:46	8/17/16 5:07	ASB 100S



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## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1090

Lab ID: E162703-07

Station ID: RV 14 4455

Matrix: Surface Water

Date Collected: 6/20/16 8:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.23		ug/L	0.026	7/01/16 10:46	8/17/16 2:00	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 2:00	ASB 100S
375-85-9	PFHpA	0.029		ug/L	0.026	7/01/16 10:46	8/17/16 2:00	ASB 100S
307-24-4	PFHxA	0.062		ug/L	0.045	7/01/16 10:46	8/17/16 2:00	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 2:00	ASB 100S
375-95-1	PFNA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 2:00	ASB 100S
335-67-1	PFOA	0.045	J, QM-3	ug/L	0.045	7/01/16 10:46	8/17/16 2:00	ASB 100S
1763-23-1	PFOS	0.10		ug/L	0.026	7/01/16 10:46	8/17/16 2:00	ASB 100S



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## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1094

Lab ID: E162703-11

Station ID: RV 14 4458

Matrix: Surface Water

Date Collected: 6/20/16 9:55

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	0.28		ug/L	0.026	7/01/16 10:46	8/17/16 2:17	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 2:17	ASB 100S
375-85-9	PFHpA	0.057		ug/L	0.026	7/01/16 10:46	8/17/16 2:17	ASB 100S
307-24-4	PFHxA	0.076		ug/L	0.045	7/01/16 10:46	8/17/16 2:17	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 2:17	ASB 100S
375-95-1	PFNA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 2:17	ASB 100S
335-67-1	PFOA	0.096		ug/L	0.045	7/01/16 10:46	8/17/16 2:17	ASB 100S
1763-23-1	PFOS	0.18		ug/L	0.026	7/01/16 10:46	8/17/16 2:17	ASB 100S



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## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1095

Lab ID: E162703-12

Station ID: RV 14 16667

Matrix: Surface Water

Date Collected: 6/20/16 10:55

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	0.38		ug/L	0.026	7/01/16 10:46	8/17/16 2:34	ASB 100S
335-76-2	PFDA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 2:34	ASB 100S
375-85-9	PFHpA	0.074		ug/L	0.026	7/01/16 10:46	8/17/16 2:34	ASB 100S
307-24-4	PFHxA	0.12		ug/L	0.046	7/01/16 10:46	8/17/16 2:34	ASB 100S
355-46-4	PFHxS	0.018	J, Q-2	ug/L	0.026	7/01/16 10:46	8/17/16 2:34	ASB 100S
375-95-1	PFNA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 2:34	ASB 100S
335-67-1	PFOA	0.15		ug/L	0.046	7/01/16 10:46	8/17/16 2:34	ASB 100S
1763-23-1	PFOS	0.15		ug/L	0.026	7/01/16 10:46	8/17/16 2:34	ASB 100S



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## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1096

Lab ID: E162703-13

Station ID: POSSIBLE RUNOFF FROM LAS

Matrix: Surface Water

Date Collected: 6/20/16 11:10

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	7.5		ug/L	0.26	7/01/16 10:46	8/17/16 2:51	ASB 100S
335-76-2	PFDA	0.31		ug/L	0.045	7/01/16 10:46	8/17/16 5:24	ASB 100S
375-85-9	PFHpA	2.7		ug/L	0.26	7/01/16 10:46	8/17/16 2:51	ASB 100S
307-24-4	PFHxA	4.8		ug/L	0.45	7/01/16 10:46	8/17/16 2:51	ASB 100S
355-46-4	PFHxS	0.085		ug/L	0.026	7/01/16 10:46	8/17/16 5:24	ASB 100S
375-95-1	PFNA	0.13		ug/L	0.045	7/01/16 10:46	8/17/16 5:24	ASB 100S
335-67-1	PFOA	0.88		ug/L	0.045	7/01/16 10:46	8/17/16 5:24	ASB 100S
1763-23-1	PFOS	2.3		ug/L	0.26	7/01/16 10:46	8/17/16 2:51	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division  
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1097

Lab ID: E162703-14

Station ID: RV 14 4460

Matrix: Surface Water

Date Collected: 6/21/16 9:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.36		ug/L	0.026	7/01/16 10:46	8/17/16 3:08	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 3:08	ASB 100S
375-85-9	PFHpA	0.067		ug/L	0.026	7/01/16 10:46	8/17/16 3:08	ASB 100S
307-24-4	PFHxA	0.14		ug/L	0.045	7/01/16 10:46	8/17/16 3:08	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 3:08	ASB 100S
375-95-1	PFNA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 3:08	ASB 100S
335-67-1	PFOA	0.15		ug/L	0.045	7/01/16 10:46	8/17/16 3:08	ASB 100S
1763-23-1	PFOS	0.15		ug/L	0.026	7/01/16 10:46	8/17/16 3:08	ASB 100S



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D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1098

Lab ID: E162703-15

Station ID: RV 14 16671

Matrix: Surface Water

Date Collected: 6/21/16 10:25

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	7.6		ug/L	0.26	7/01/16 10:46	8/17/16 3:25	ASB 100S
335-76-2	PFDA	0.21		ug/L	0.045	7/01/16 10:46	8/17/16 5:41	ASB 100S
375-85-9	PFHpA	1.4		ug/L	0.26	7/01/16 10:46	8/17/16 3:25	ASB 100S
307-24-4	PFHxA	2.7		ug/L	0.45	7/01/16 10:46	8/17/16 3:25	ASB 100S
355-46-4	PFHxS	0.077		ug/L	0.026	7/01/16 10:46	8/17/16 5:41	ASB 100S
375-95-1	PFNA	0.11		ug/L	0.045	7/01/16 10:46	8/17/16 5:41	ASB 100S
335-67-1	PFOA	0.63		ug/L	0.045	7/01/16 10:46	8/17/16 5:41	ASB 100S
1763-23-1	PFOS	1.2		ug/L	0.26	7/01/16 10:46	8/17/16 3:25	ASB 100S



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D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1099

Lab ID: E162703-16

Station ID: PO 14 2439

Matrix: Surface Water

Date Collected: 6/21/16 11:05

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	0.14		ug/L	0.026	7/01/16 10:46	8/17/16 3:42	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 3:42	ASB 100S
375-85-9	PFHpA	0.034		ug/L	0.026	7/01/16 10:46	8/17/16 3:42	ASB 100S
307-24-4	PFHxA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 3:42	ASB 100S
355-46-4	PFHxS	0.020	J, Q-2	ug/L	0.026	7/01/16 10:46	8/17/16 3:42	ASB 100S
375-95-1	PFNA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 3:42	ASB 100S
335-67-1	PFOA	0.052		ug/L	0.045	7/01/16 10:46	8/17/16 3:42	ASB 100S
1763-23-1	PFOS	0.083		ug/L	0.026	7/01/16 10:46	8/17/16 3:42	ASB 100S



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D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1100

Lab ID: E162703-17

Station ID: RV 14 4463

Matrix: Surface Water

Date Collected: 6/21/16 12:25

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	0.33		ug/L	0.026	7/01/16 10:46	8/17/16 3:59	ASB 100S
335-76-2	PFDA	0.022	J, Q-2	ug/L	0.046	7/01/16 10:46	8/17/16 3:59	ASB 100S
375-85-9	PFHpA	0.069		ug/L	0.026	7/01/16 10:46	8/17/16 3:59	ASB 100S
307-24-4	PFHxA	0.11		ug/L	0.046	7/01/16 10:46	8/17/16 3:59	ASB 100S
355-46-4	PFHxS	0.022	J, Q-2	ug/L	0.026	7/01/16 10:46	8/17/16 3:59	ASB 100S
375-95-1	PFNA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 3:59	ASB 100S
335-67-1	PFOA	0.16		ug/L	0.046	7/01/16 10:46	8/17/16 3:59	ASB 100S
1763-23-1	PFOS	0.13		ug/L	0.026	7/01/16 10:46	8/17/16 3:59	ASB 100S



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Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1101

Lab ID: E162703-18

Station ID: RV 14 16672

Matrix: Surface Water

Date Collected: 6/21/16 14:05

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	5.7		ug/L	0.26	7/01/16 10:46	8/17/16 4:16	ASB 100S
335-76-2	PFDA	0.48		ug/L	0.045	7/01/16 10:46	8/17/16 5:58	ASB 100S
375-85-9	PFHpA	0.95		ug/L	0.026	7/01/16 10:46	8/17/16 5:58	ASB 100S
307-24-4	PFHxA	1.3		ug/L	0.45	7/01/16 10:46	8/17/16 4:16	ASB 100S
355-46-4	PFHxS	0.11		ug/L	0.026	7/01/16 10:46	8/17/16 5:58	ASB 100S
375-95-1	PFNA	0.13		ug/L	0.045	7/01/16 10:46	8/17/16 5:58	ASB 100S
335-67-1	PFOA	0.60		ug/L	0.045	7/01/16 10:46	8/17/16 5:58	ASB 100S
1763-23-1	PFOS	2.1		ug/L	0.26	7/01/16 10:46	8/17/16 4:16	ASB 100S



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Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1102

Lab ID: E162703-19

Station ID: RV 14 16673

Matrix: Surface Water

Date Collected: 6/21/16 14:45

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	0.35		ug/L	0.026	7/01/16 10:46	8/17/16 4:33	ASB 100S
335-76-2	PFDA	0.024	J, Q-2	ug/L	0.046	7/01/16 10:46	8/17/16 4:33	ASB 100S
375-85-9	PFHpA	0.081		ug/L	0.026	7/01/16 10:46	8/17/16 4:33	ASB 100S
307-24-4	PFHxA	0.098		ug/L	0.046	7/01/16 10:46	8/17/16 4:33	ASB 100S
355-46-4	PFHxS	0.018	J, Q-2	ug/L	0.026	7/01/16 10:46	8/17/16 4:33	ASB 100S
375-95-1	PFNA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 4:33	ASB 100S
335-67-1	PFOA	0.14		ug/L	0.046	7/01/16 10:46	8/17/16 4:33	ASB 100S
1763-23-1	PFOS	0.25		ug/L	0.026	7/01/16 10:46	8/17/16 4:33	ASB 100S



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D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1103

Lab ID: E162703-20

Station ID: RV 14 4419

Matrix: Surface Water

Date Collected: 6/21/16 15:10

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	0.20		ug/L	0.026	7/01/16 10:46	8/17/16 4:50	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 4:50	ASB 100S
375-85-9	PFHpA	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 4:50	ASB 100S
307-24-4	PFHxA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 4:50	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 4:50	ASB 100S
375-95-1	PFNA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 4:50	ASB 100S
335-67-1	PFOA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 4:50	ASB 100S
1763-23-1	PFOS	0.013	J, Q-2	ug/L	0.026	7/01/16 10:46	8/17/16 4:50	ASB 100S



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D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1104

Lab ID: E162703-21

Station ID: RV 14 16674

Matrix: Surface Water

Date Collected: 6/22/16 9:05

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	0.22		ug/L	0.026	7/05/16 14:00	8/16/16 13:44	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 13:44	ASB 100S
375-85-9	PFHpA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 13:44	ASB 100S
307-24-4	PFHxA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 13:44	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 13:44	ASB 100S
375-95-1	PFNA	0.045	U, J, QR-1	ug/L	0.045	7/05/16 14:00	8/16/16 13:44	ASB 100S
335-67-1	PFOA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 13:44	ASB 100S
1763-23-1	PFOS	0.085		ug/L	0.026	7/05/16 14:00	8/16/16 13:44	ASB 100S



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D.A.R.T. Id: 16-0451

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## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1105

Lab ID: E162703-22

Station ID: RV 14 4420

Matrix: Surface Water

Date Collected: 6/22/16 10:05

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	0.22		ug/L	0.026	7/05/16 14:00	8/16/16 14:01	ASB 100S
335-76-2	PFDA	0.046	U	ug/L	0.046	7/05/16 14:00	8/16/16 14:01	ASB 100S
375-85-9	PFHpA	0.019	J, Q-2	ug/L	0.026	7/05/16 14:00	8/16/16 14:01	ASB 100S
307-24-4	PFHxA	0.046	U	ug/L	0.046	7/05/16 14:00	8/16/16 14:01	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 14:01	ASB 100S
375-95-1	PFNA	0.046	U, J, QR-1	ug/L	0.046	7/05/16 14:00	8/16/16 14:01	ASB 100S
335-67-1	PFOA	0.026		ug/L	0.026	7/05/16 14:00	8/16/16 14:01	ASB 100S
1763-23-1	PFOS	0.061		ug/L	0.026	7/05/16 14:00	8/16/16 14:01	ASB 100S



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## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1109

Lab ID: E162703-26

Station ID: RV 14 4423

Matrix: Surface Water

Date Collected: 6/22/16 12:15

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	0.23		ug/L	0.026	7/05/16 14:00	8/16/16 14:18	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 14:18	ASB 100S
375-85-9	PFHpA	0.020	J, Q-2	ug/L	0.026	7/05/16 14:00	8/16/16 14:18	ASB 100S
307-24-4	PFHxA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 14:18	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 14:18	ASB 100S
375-95-1	PFNA	0.045	U, J, QR-1	ug/L	0.045	7/05/16 14:00	8/16/16 14:18	ASB 100S
335-67-1	PFOA	0.026		ug/L	0.026	7/05/16 14:00	8/16/16 14:18	ASB 100S
1763-23-1	PFOS	0.059		ug/L	0.026	7/05/16 14:00	8/16/16 14:18	ASB 100S



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D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1110

Lab ID: E162703-27

Station ID: RV 14 16676

Matrix: Surface Water

Date Collected: 6/22/16 12:50

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	0.029		ug/L	0.026	7/05/16 14:00	8/16/16 14:35	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 14:35	ASB 100S
375-85-9	PFHpA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 14:35	ASB 100S
307-24-4	PFHxA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 14:35	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 14:35	ASB 100S
375-95-1	PFNA	0.045	U, J, QR-1	ug/L	0.045	7/05/16 14:00	8/16/16 14:35	ASB 100S
335-67-1	PFOA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 14:35	ASB 100S
1763-23-1	PFOS	0.024	J, Q-2	ug/L	0.026	7/05/16 14:00	8/16/16 14:35	ASB 100S



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D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1111

Lab ID: E162703-28

Station ID: RV 14 4426

Matrix: Surface Water

Date Collected: 6/22/16 15:34

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	0.22		ug/L	0.026	7/05/16 14:00	8/16/16 14:52	ASB 100S
335-76-2	PFDA	0.046	U	ug/L	0.046	7/05/16 14:00	8/16/16 14:52	ASB 100S
375-85-9	PFHpA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 14:52	ASB 100S
307-24-4	PFHxA	0.046	U	ug/L	0.046	7/05/16 14:00	8/16/16 14:52	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 14:52	ASB 100S
375-95-1	PFNA	0.046	U, J, QR-1	ug/L	0.046	7/05/16 14:00	8/16/16 14:52	ASB 100S
335-67-1	PFOA	0.018	J, Q-2	ug/L	0.026	7/05/16 14:00	8/16/16 14:52	ASB 100S
1763-23-1	PFOS	0.058		ug/L	0.026	7/05/16 14:00	8/16/16 14:52	ASB 100S



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D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1112

Lab ID: E162703-29

Station ID: RV 14 4427

Matrix: Surface Water

Date Collected: 6/23/16 8:55

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	0.22		ug/L	0.026	7/05/16 14:00	8/16/16 15:09	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 15:09	ASB 100S
375-85-9	PFHpA	0.019	J, Q-2	ug/L	0.026	7/05/16 14:00	8/16/16 15:09	ASB 100S
307-24-4	PFHxA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 15:09	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 15:09	ASB 100S
375-95-1	PFNA	0.045	U, J, QR-1	ug/L	0.045	7/05/16 14:00	8/16/16 15:09	ASB 100S
335-67-1	PFOA	0.028		ug/L	0.026	7/05/16 14:00	8/16/16 15:09	ASB 100S
1763-23-1	PFOS	0.057		ug/L	0.026	7/05/16 14:00	8/16/16 15:09	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division  
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1113

Lab ID: E162703-30

Station ID: RV 14 16679

Matrix: Surface Water

Date Collected: 6/23/16 9:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 15:26	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 15:26	ASB 100S
375-85-9	PFHpA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 15:26	ASB 100S
307-24-4	PFHxA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 15:26	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 15:26	ASB 100S
375-95-1	PFNA	0.045	U, J, QR-1	ug/L	0.045	7/05/16 14:00	8/16/16 15:26	ASB 100S
335-67-1	PFOA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 15:26	ASB 100S
1763-23-1	PFOS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 15:26	ASB 100S



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D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1114

Lab ID: E162703-31

Station ID: RV 14 4430

Matrix: Surface Water

Date Collected: 6/23/16 13:40

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	0.22		ug/L	0.026	7/05/16 14:00	8/16/16 15:43	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 15:43	ASB 100S
375-85-9	PFHpA	0.018	J, Q-2	ug/L	0.026	7/05/16 14:00	8/16/16 15:43	ASB 100S
307-24-4	PFHxA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 15:43	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 15:43	ASB 100S
375-95-1	PFNA	0.045	U, J, QR-1	ug/L	0.045	7/05/16 14:00	8/16/16 15:43	ASB 100S
335-67-1	PFOA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 15:43	ASB 100S
1763-23-1	PFOS	0.050		ug/L	0.026	7/05/16 14:00	8/16/16 15:43	ASB 100S



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D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1115

Lab ID: E162703-32

Station ID: RV 14 4533

Matrix: Surface Water

Date Collected: 6/24/16 11:20

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	0.23		ug/L	0.026	7/05/16 14:00	8/16/16 16:00	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 16:00	ASB 100S
375-85-9	PFHpA	0.019	J, Q-2	ug/L	0.026	7/05/16 14:00	8/16/16 16:00	ASB 100S
307-24-4	PFHxA	0.037	J, Q-2	ug/L	0.045	7/05/16 14:00	8/16/16 16:00	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 16:00	ASB 100S
375-95-1	PFNA	0.045	U, J, QR-1	ug/L	0.045	7/05/16 14:00	8/16/16 16:00	ASB 100S
335-67-1	PFOA	0.021	J, Q-2	ug/L	0.026	7/05/16 14:00	8/16/16 16:00	ASB 100S
1763-23-1	PFOS	0.076		ug/L	0.026	7/05/16 14:00	8/16/16 16:00	ASB 100S



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Region 4 Science and Ecosystem Support Division  
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1116

Lab ID: E162703-33

Station ID: RV 14 16685

Matrix: Surface Water

Date Collected: 6/24/16 12:10

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	0.041		ug/L	0.026	7/05/16 14:00	8/16/16 16:17	ASB 100S
335-76-2	PFDA	0.046	U	ug/L	0.046	7/05/16 14:00	8/16/16 16:17	ASB 100S
375-85-9	PFHpA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 16:17	ASB 100S
307-24-4	PFHxA	0.046	U	ug/L	0.046	7/05/16 14:00	8/16/16 16:17	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 16:17	ASB 100S
375-95-1	PFNA	0.046	U, J, QR-1	ug/L	0.046	7/05/16 14:00	8/16/16 16:17	ASB 100S
335-67-1	PFOA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 16:17	ASB 100S
1763-23-1	PFOS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 16:17	ASB 100S



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D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1117

Lab ID: E162703-34

Station ID: RV 14 4534

Matrix: Surface Water

Date Collected: 6/24/16 12:45

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	0.24		ug/L	0.026	7/05/16 14:00	8/16/16 16:34	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 16:34	ASB 100S
375-85-9	PFHpA	0.019	J, Q-2	ug/L	0.026	7/05/16 14:00	8/16/16 16:34	ASB 100S
307-24-4	PFHxA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 16:34	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 16:34	ASB 100S
375-95-1	PFNA	0.045	U, J, QR-1	ug/L	0.045	7/05/16 14:00	8/16/16 16:34	ASB 100S
335-67-1	PFOA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 16:34	ASB 100S
1763-23-1	PFOS	0.059		ug/L	0.026	7/05/16 14:00	8/16/16 16:34	ASB 100S



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D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1118

Lab ID: E162703-35

Station ID: RV 14 16686

Matrix: Surface Water

Date Collected: 6/24/16 13:15

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	0.22		ug/L	0.026	7/05/16 14:00	8/16/16 16:51	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 16:51	ASB 100S
375-85-9	PFHpA	0.017	J, Q-2	ug/L	0.026	7/05/16 14:00	8/16/16 16:51	ASB 100S
307-24-4	PFHxA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 16:51	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 16:51	ASB 100S
375-95-1	PFNA	0.045	U, J, QR-1	ug/L	0.045	7/05/16 14:00	8/16/16 16:51	ASB 100S
335-67-1	PFOA	0.020	J, Q-2	ug/L	0.026	7/05/16 14:00	8/16/16 16:51	ASB 100S
1763-23-1	PFOS	0.066		ug/L	0.026	7/05/16 14:00	8/16/16 16:51	ASB 100S



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D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1119

Lab ID: E162703-36

Station ID: RV 14 16687

Matrix: Surface Water

Date Collected: 6/24/16 13:30

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 17:08	ASB 100S
335-76-2	PFDA	0.046	U	ug/L	0.046	7/05/16 14:00	8/16/16 17:08	ASB 100S
375-85-9	PFHpA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 17:08	ASB 100S
307-24-4	PFHxA	0.046	U	ug/L	0.046	7/05/16 14:00	8/16/16 17:08	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 17:08	ASB 100S
375-95-1	PFNA	0.046	U, J, QR-1	ug/L	0.046	7/05/16 14:00	8/16/16 17:08	ASB 100S
335-67-1	PFOA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 17:08	ASB 100S
1763-23-1	PFOS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 17:08	ASB 100S



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D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1120

Lab ID: E162703-37

Station ID: RV 14 4599

Matrix: Surface Water

Date Collected: 6/24/16 13:45

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	0.19		ug/L	0.026	7/05/16 14:00	8/16/16 17:25	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 17:25	ASB 100S
375-85-9	PFHpA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 17:25	ASB 100S
307-24-4	PFHxA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 17:25	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 17:25	ASB 100S
375-95-1	PFNA	0.045	U, J, QR-1	ug/L	0.045	7/05/16 14:00	8/16/16 17:25	ASB 100S
335-67-1	PFOA	0.022	J, Q-2	ug/L	0.026	7/05/16 14:00	8/16/16 17:25	ASB 100S
1763-23-1	PFOS	0.045		ug/L	0.026	7/05/16 14:00	8/16/16 17:25	ASB 100S



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Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1121

Lab ID: E162703-38

Station ID: RV 14 4604

Matrix: Surface Water

Date Collected: 6/24/16 14:35

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
375-73-5	PFBS	0.13		ug/L	0.026	7/05/16 14:00	8/16/16 17:42	ASB 100S
335-76-2	PFDA	0.046	U	ug/L	0.046	7/05/16 14:00	8/16/16 17:42	ASB 100S
375-85-9	PFHpA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 17:42	ASB 100S
307-24-4	PFHxA	0.046	U	ug/L	0.046	7/05/16 14:00	8/16/16 17:42	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 17:42	ASB 100S
375-95-1	PFNA	0.046	U, J, QR-1	ug/L	0.046	7/05/16 14:00	8/16/16 17:42	ASB 100S
335-67-1	PFOA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 17:42	ASB 100S
1763-23-1	PFOS	0.034		ug/L	0.026	7/05/16 14:00	8/16/16 17:42	ASB 100S



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Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

## Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1122

Lab ID: E162703-39

Station ID: RV 14 4614

Matrix: Surface Water

Date Collected: 6/24/16 15:05

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.11		ug/L	0.026	7/05/16 14:00	8/16/16 17:59	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 17:59	ASB 100S
375-85-9	PFHpA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 17:59	ASB 100S
307-24-4	PFHxA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 17:59	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 17:59	ASB 100S
375-95-1	PFNA	0.045	U, J, QR-1	ug/L	0.045	7/05/16 14:00	8/16/16 17:59	ASB 100S
335-67-1	PFOA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 17:59	ASB 100S
1763-23-1	PFOS	0.033		ug/L	0.026	7/05/16 14:00	8/16/16 17:59	ASB 100S



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D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

**Semi Volatile Organics (SVOA) - Quality Control**

**US-EPA, Region 4, SESD**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1608048 - S PFC**

**Blank (1608048-BLK1)**

Prepared: 07/22/16 Analyzed: 08/17/16

**ASB 100S**

PFBS	U	0.026	ug/L							U
PFDA	U	0.046	"							U
PFHpA	U	0.026	"							U
PFHxA	U	0.046	"							U
PFHxS	U	0.026	"							U
PFNA	U	0.046	"							U
PFOA	U	0.026	"							U
PFOS	U	0.026	"							U

**LCS (1608048-BS1)**

Prepared: 07/22/16 Analyzed: 08/16/16

**ASB 100S**

PFBS	0.65658	0.026	ug/L	0.58119		113	70-130
PFDA	0.59335	0.045	"	0.58719		101	70-130
PFHpA	0.65433	0.026	"	0.59312		110	70-130
PFHxA	0.64497	0.045	"	0.58142		111	70-130
PFHxS	0.67405	0.026	"	0.59031		114	70-130
PFNA	0.70018	0.045	"	0.59251		118	70-130
PFOA	0.70019	0.026	"	0.58644		119	70-130
PFOS	0.57502	0.026	"	0.59312		96.9	70-130

**Matrix Spike (1608048-MS1)**

Source: E162703-22RE1

Prepared: 07/05/16 Analyzed: 08/16/16

**ASB 100S**

PFBS	0.79533	0.026	ug/L	0.51114	0.22297	112	70-130
PFDA	0.55524	0.046	"	0.51642	U	108	70-130
PFHpA	0.63288	0.026	"	0.52163	0.019058	118	70-130
PFHxA	0.55827	0.046	"	0.51134	U	109	70-130
PFHxS	0.56703	0.026	"	0.51916	U	109	70-130
PFNA	0.50492	0.046	"	0.52109	U	96.9	70-130
PFOA	0.68933	0.026	"	0.51575	0.026110	129	70-130
PFOS	0.53731	0.026	"	0.52163	0.061153	91.3	70-130



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

**Semi Volatile Organics (SVOA) - Quality Control**

**US-EPA, Region 4, SESD**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1608048 - S PFC**

**Matrix Spike Dup (1608048-MSD1)**

Source: E162703-22RE1

Prepared: 07/05/16 Analyzed: 08/16/16

**ASB 100S**

PFBS	0.73412	0.026	ug/L	0.52821	0.22297	96.8	70-130	8.00	20	
PFDA	0.59107	0.045	"	0.53366	U	111	70-130	6.25	20	
PFHpA	0.57420	0.026	"	0.53904	0.019058	103	70-130	9.72	20	
PFHxA	0.58121	0.045	"	0.52841	U	110	70-130	4.03	20	
PFHxS	0.56855	0.026	"	0.53649	U	106	70-130	0.268	20	
PFNA	0.54048	0.045	"	0.53849	U	100	70-130	6.80	20	
PFOA	0.60959	0.026	"	0.53297	0.026110	109	70-130	12.3	20	
PFOS	0.58729	0.026	"	0.53904	0.061153	97.6	70-130	8.89	20	

**MRL Verification (1608048-PS1)**

Prepared: 07/22/16 Analyzed: 08/16/16

**ASB 100S**

PFBS	0.034906	0.026	ug/L	0.025990		134	50-150			MRL-2
PFHpA	0.022948	0.026	"	0.026524		86.5	50-150			Q-2, MRL-2, J
PFHxS	0.022851	0.026	"	0.026398		86.6	50-150			Q-2, MRL-2, J
PFOA	0.022630	0.026	"	0.026225		86.3	50-150			Q-2, MRL-2, J
PFOS	0.022213	0.026	"	0.026524		83.7	50-150			Q-2, MRL-2, J

**MRL Verification (1608048-PS2)**

Prepared: 07/22/16 Analyzed: 08/16/16

**ASB 100S**

PFDA	0.030647	0.045	ug/L	0.045954		66.7	50-150			Q-2, MRL-2, J
PFHxA	0.033641	0.045	"	0.045502		73.9	50-150			Q-2, MRL-2, J
PFNA	0.019783	0.045	"	0.046370		42.7	50-150			Q-2, MRL-2, QR-1, U

**Batch 1608086 - S PFC**

**Blank (1608086-BLK1)**

Prepared: 07/22/16 Analyzed: 08/16/16

**ASB 100S**

PFBS	U	0.026	ug/L							U
PFDA	U	0.046	"							U
PFHpA	U	0.026	"							U
PFHxA	U	0.046	"							U
PFHxS	U	0.026	"							U
PFNA	U	0.046	"							U



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division  
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

**Semi Volatile Organics (SVOA) - Quality Control**

**US-EPA, Region 4, SESD**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1608086 - S PFC**

**Blank (1608086-BLK1)**

Prepared: 07/22/16 Analyzed: 08/16/16

PFOA	U	0.046	ug/L							U
PFOS	U	0.026	"							U

**LCS (1608086-BS1)**

Prepared: 07/22/16 Analyzed: 08/16/16

**ASB 100S**

PFBS	0.63338	0.026	ug/L	0.58119		109	70-130			
PFDA	0.70243	0.045	"	0.58719		120	70-130			
PFHpA	0.65147	0.026	"	0.59312		110	70-130			
PFHxA	0.64846	0.045	"	0.58142		112	70-130			
PFHxS	0.70746	0.026	"	0.59031		120	70-130			
PFNA	0.66944	0.045	"	0.59251		113	70-130			
PFOA	0.74758	0.045	"	0.58644		127	70-130			
PFOS	0.53952	0.026	"	0.59312		91.0	70-130			

**Matrix Spike (1608086-MS1)**

Source: E162703-07RE1

Prepared: 07/01/16 Analyzed: 08/17/16

**ASB 100S**

PFBS	0.79835	0.026	ug/L	0.56729	0.22637	101	70-130			
PFDA	0.63056	0.046	"	0.57315	U	110	70-130			
PFHpA	0.65272	0.026	"	0.57893	0.029294	108	70-130			
PFHxA	0.68616	0.046	"	0.56751	0.061840	110	70-130			
PFHxS	0.70955	0.026	"	0.57619	U	123	70-130			
PFNA	0.59778	0.046	"	0.57834	U	103	70-130			
PFOA	0.77084	0.046	"	0.57241	0.045425	127	70-130			
PFOS	0.57303	0.026	"	0.57893	0.10354	81.1	70-130			

**Matrix Spike Dup (1608086-MSD1)**

Source: E162703-07RE1

Prepared: 07/01/16 Analyzed: 08/17/16

**ASB 100S**

PFBS	0.75008	0.026	ug/L	0.52112	0.22637	100	70-130	6.23	20	
PFDA	0.59617	0.046	"	0.52650	U	113	70-130	5.61	20	
PFHpA	0.60333	0.026	"	0.53181	0.029294	108	70-130	7.86	20	
PFHxA	0.64053	0.046	"	0.52132	0.061840	111	70-130	6.88	20	
PFHxS	0.62295	0.026	"	0.52929	U	118	70-130	13.0	20	
PFNA	0.56766	0.046	"	0.53127	U	107	70-130	5.17	20	
PFOA	0.61730	0.046	"	0.52582	0.045425	109	70-130	22.1	20	QM-3
PFOS	0.59201	0.026	"	0.53181	0.10354	91.9	70-130	3.26	20	



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**Semi Volatile Organics (SVOA) - Quality Control**

**US-EPA, Region 4, SESD**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1608086 - S PFC**

**MRL Verification (1608086-PS1)**

Prepared: 07/22/16 Analyzed: 08/16/16

**ASB 100S**

PFBS	0.032029	0.026	ug/L	0.025990		123	50-150			MRL-2
PFHpA	0.023125	0.026	"	0.026524		87.2	50-150			Q-2, MRL-2, J
PFHxS	0.033137	0.026	"	0.026398		126	50-150			MRL-2
PFOS	0.026998	0.026	"	0.026524		102	50-150			MRL-2

**MRL Verification (1608086-PS2)**

Prepared: 07/22/16 Analyzed: 08/20/16

**ASB 100S**

PFDA	0.039014	0.045	ug/L	0.045954		84.9	50-150			Q-2, MRL-2, J
PFHxA	0.031326	0.045	"	0.045502		68.8	50-150			Q-2, MRL-2, J
PFNA	0.024746	0.045	"	0.046370		53.4	50-150			Q-2, MRL-2, U
PFOA	0.034808	0.045	"	0.045894		75.8	50-150			Q-2, MRL-2, J



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**Notes and Definitions for QC Samples**

U	The analyte was not detected at or above the reporting limit.
J	The identification of the analyte is acceptable; the reported value is an estimate.
MRL-2	MRL verification for Non-Potable Water matrix
Q-2	Result greater than MDL but less than MRL.
QM-3	Matrix Spike Precision outside method control limits
QR-1	MRL verification recovery less than lower control limits.